

CLAIMS:

- Sub
A-1
1. A local area network within a building for transporting data among a plurality of data units, the local area network comprising at least one wired segment and at least one non-wired segment, wherein said at least one wired segment includes:
- 5
- (a) at least one electrically-conducting line within the building, said electrically-conducting line having at least two conductors and operative to transport data communication signals;
 - (b) at least two outlets, each operative for coupling to said electrically-conducting line; and
 - (c) at least one wired modem coupled to said electrically-conducting line, operative to communicate over said electrically-conducting line;
- 10
- and wherein said at least one non-wired segment is operative to communicating data without electrically-conducting media and includes at least one non-wired modem, wherein at least one of said outlets couples a wired segment to a non-wired segment, and wherein said at least one electrically-conducting line is furthermore operative for concurrently distributing a service other than the transport of data communication signals.
- 15
- 20
2. The local area network as in claim 1, wherein said service is included in a group containing telephone service, electrical power service, and cable television service.
3. The local area network as in claim 1, wherein at least one of said electrically-conducting lines is a telephone line and wherein at least one of said outlets is a telephone outlet.
- 25

Sub
A-1

4. The local area network as in claim 3, wherein said telephone line is furthermore operative to providing telephony service concurrently with data communications.

5. The local area network as in claim 1, wherein at least one of said electrically-conducting lines is a power line and wherein at least one of said outlets is a power outlet.

Sub
A-1

6. The local area network as in claim 5, wherein said power line is furthermore operative to carrying electrical power concurrently with data communications.

7. The local area network as in claim 1, wherein at least one of said electrically-conducting lines is a cable television line, and wherein at least one of said outlets is a cable television outlet.

Sub
A-1

8. The local area network as in claim 7, wherein said cable television line is furthermore operative to carrying television signals concurrently with data communications.

9. The local area network as in claim 1, wherein said non-wired segment is furthermore operative to communicating data by light.

10. The local area network as in claim 9, wherein said light is infrared.

Sub
A-1

11. The local area network as in claim 1, wherein said non-wired segment is furthermore operative to communicating data by electromagnetic transmission.

12. The local area network as in claim 11, wherein said electromagnetic transmission is radio-frequency transmission.

Sub A 13. The local area network as in claim 1, wherein said non-wired segment is furthermore operative to communicating data by sound.

14. The local area network as in claim 13, wherein said sound is audible sound.

5 15. The local area network as in claim 13, wherein said sound is inaudible sound.

Sub A 16. The local area network as in claim 1, further comprising a module operative to coupling said wired segment to said non-wired segments.

10 17. The local area network as in claim 16, wherein said module is fully integrated within one of said outlets.

18. The local area network as in claim 16, wherein said module is partially integrated within one of said outlets.

19. The local area network as in claim 16, wherein said module is externally coupled to one of said outlets.

Sub A 18 20. A kit for upgrading existing wiring of a building to support a local area network having at least one wired segment and at least one non-wired segment, the kit comprising:

(a) an outlet for coupling to the non-wired segment; and

(b) an adapter module for coupling said outlet to the existing wiring, wherein said adapter module contains:

i) at least one wired modem operative for transporting data communication signals over the existing wiring, and

ii) at least one non-wired modem operative to transporting data communication signals without an electrically-conducting medium.

20

25

21. The kit as in claim 20, wherein said adapter module is further operative to data handling and protocol converting.

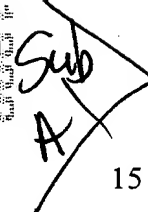
22. The kit as in claim 20, wherein said adapter module is integrated within said outlet.

5 23. The kit as in claim 20, wherein said adapter module is partially integrated within said outlet.

24. The kit as in claim 20, wherein said wired modem is a telephone-line modem and said outlet is a telephone outlet.

10 25. The kit as in claim 20, wherein said wired modem is a power-line modem and said outlet is a power outlet.

26. The kit as in claim 20, wherein said wired modem is a cable television-line modem and said outlet is a cable television outlet.

15  27. An adapter module for use in upgrading existing wiring of a building so as to support a local area network having at least one wired segment and at least one non-wired segment coupled to an outlet, the adapter module coupling said outlet to the existing wiring and comprising:

- 20
- i) at least one wired modem operative for transporting data communication signals over the existing wiring, and
 - ii) at least one non-wired modem operative to transporting data communication signals without an electrically-conducting medium.

28. The adapter module as in claim 27, being further operative to data handling and protocol converting.


25 29. The adapter module as in claim 27, being fully integrated within said outlet.

30. The adapter module as in claim 27, being partially integrated within said outlet.

31. The adapter module as in claim 27, wherein said wired modem is a telephone-line modem and said outlet is a telephone outlet.

5 32. The adapter module as in claim 27, wherein said wired modem is a power-line modem and said outlet is a power outlet.

33. The adapter module as in claim 27, wherein said wired modem is a cable television-line modem and said outlet is a cable television outlet.

 34. An outlet for use in upgrading existing wiring of a building so as to support a local area network having at least one wired segment and at least one non-wired segment, the outlet comprising:

(a) a first coupler for coupling the outlet to the at least one non-wired segment,

(b) a second coupler for coupling the outlet to the existing wiring via an adapter module, comprising:

i) at least one wired modem operative for transporting data communication signals over the existing wiring, and

ii) at least one non-wired modem operative to transporting data communication signals without an electrically-conducting medium.

35. The outlet as in claim 34, being fully integrated with the adapter module.

36. The outlet as in claim 34, being partially integrated with the adapter module.

37. A method for upgrading existing wiring within a building to support a network for transporting data communication signals, the network having a wired segment and a non-wired segment, the method comprising the steps of:

- 5 (a) providing a wired modem;
- (b) providing a non-wired modem;
- (c) providing an adapter operative for handling data communication signals between the wired segment and the non-wired segment;
- (d) providing an outlet; and
- 10 (e) equipping said outlet with said wired modem, said non-wired modem, and said adapter.

